

Progress Report for Fugitive Dust and Fumes Assessment

June 1, 2000

Introduction

This report outlines the progress made to date for the Fugitive Dust and Fumes Assessment. This work plan, which can be reviewed in its entirety on a separate page on this web site, is being carried out by The Department of Mining Engineering at West Virginia University. The purpose of the work plan is to identify the extent of fugitive dust and fumes from surface blasting (those dusts and fumes which escape the mining property) and determine whether they are negligible, occur at nuisance levels, or have any associated health risks. For further information, you may wish to contact Lloyd M. English or Yi Luo at the Department of Mining Engineering, West Virginia University.

Progress to Date

The project started at the beginning of October 1999, during which month the major tasks were the performance of literature reviews, interviews of experts, and the assessment of equipment needs.

All major equipment required for this project has been acquired, and on-site training was given to active personnel this month. The equipment is straight-forward to operate, and provides more-than-adequate data for the requirements. The gas monitors and the dust pumps are all data-loggers, and all can be downloaded directly to PC. Dust samples will, of course, need to be weighed at the laboratory, but the pump history will be a matter of record.

Three mining companies have actively agreed to cooperate, and we now have an adequate base for investigation. Company A is a mid-size company, typical of the average West Virginia MTR site, and has occasional smaller cast blasts as well as production blasts. Company B is a major operation that includes large cast blasts as well as standard production blasts. Company C is a smaller operation that typically uses small to mid-sized production blasts.

This month, two blasting events were monitored, one at mine A and one at mine B. Both were production shots, and both passed over installed monitors, so data has been obtained. Possibly the most valuable aspect of this first field exercise is the fine-tuning of our experimental approach. The basic information acquisition will not change, but we have found some ways to expedite the process, reduce set-up time, and improve the integrity of the monitoring stations. This first trip has demonstrated that our approach is sound, and that we should be able to obtain good results over the summer.